CLAIMS

1. A recording liquid deposited on a support as liquid droplets for performing recording thereon, wherein

the recording liquid contains a dyestuff, a solvent for dispersing said dyestuff and a surfactant containing an organic compound represented by the chemical formula (1):

$$\begin{array}{c} \text{CH}_{3} \\ \text{CH}_{2} \text{--O} \text{--} (\text{CH}_{2} \, \text{CH}_{2} \, \text{O})_{\text{n}} \text{---} (\text{CH}_{2} \, \text{CHO})_{\text{l}} \text{H} \\ \text{CH}_{3} \text{---C} \text{---CH}_{2} \, \text{CH}_{2} \, \text{CH}_{2} \, \text{CH}_{3} \\ \text{CH}_{2} \text{---O} \text{---} (\text{CH}_{2} \, \text{CH}_{2} \, \text{O})_{\text{m}} \text{---} (\text{CH}_{2} \, \text{CHO})_{\text{k}} \text{H} \\ \text{CH}_{3} \end{array}$$

·····(1)

where $k+1 = 1 \sim 10$ and $m+n = 2 \sim 30$.

- 2. The recording liquid according to claim 1 wherein said surfactant is contained in an amount not lower than 0.05 wt% and not higher than 10 wt%.
- 3. A liquid cartridge mounted to a liquid supplying device provided to a liquid emitting apparatus configured for emitting a recording liquid contained in a liquid vessel in the form of liquid droplets for depositing the so emitted liquid droplets on a support to effect recording, said liquid cartridge operating as a supply source for said recording liquid for said liquid supplying device, wherein

said recording liquid contains a dyestuff, a solvent for dispersing said dyestuff and an organic compound represented by the chemical formula (1):

$$\begin{array}{c} \text{CH}_{3} \\ \text{CH}_{2} \text{---O} \text{---} (\text{CH}_{2} \, \text{CH}_{2} \, \text{O})_{n} \text{----} (\text{CH}_{2} \, \text{CHO})_{1} \text{H} \\ \text{CH}_{3} \text{----C} \text{---CH}_{2} \, \text{CH}_{2} \, \text{CH}_{3} \\ \text{CH}_{2} \text{-----} (\text{CH}_{2} \, \text{CH}_{2} \, \text{O})_{m} \text{----} (\text{CH}_{2} \, \text{CHO})_{k} \text{H} \\ \text{CH}_{3} \end{array}$$

....(1)

where $k+1 = 1 \sim 10$ and $m+n = 2 \sim 30$.

- 4. The liquid cartridge according to claim 3 wherein said surfactant is contained in an amount not lower than 0.05 wt% and not higher than 10 wt%.
- 5. The liquid cartridge according to claim 3 wherein said liquid vessel includes a liquid container for accommodating said recording liquid, a connecting unit which, when the liquid vessel is mounted on said liquid supply apparatus, connects said recording liquid accommodated in said liquid container to said liquid supply apparatus so that said recording liquid may be supplied to said liquid supply apparatus, an opening for communication with outside which, when the liquid vessel is mounted on said liquid supply apparatus, takes in air from outside in an amount equivalent to a decreased amount of the recording liquid in said liquid container brought about by the supply of said recording liquid from said liquid

container to said liquid supply apparatus, an air inlet duct for providing for communication between said liquid container and said opening for communication with outside for introducing air taken in from said opening for communication with outside into said liquid container, and a reservoir arranged between said opening for communication with outside and said air inlet duct for storage of said recording liquid flowing out from said liquid container.

6. A liquid emitting apparatus comprising emitting means including a liquid chamber for storage of a recording liquid therein, a supply unit for supplying said recording liquid to said liquid chamber, at least one pressure generating device provided in said liquid chamber for pressurizing said recording liquid stored in said liquid chamber, and an emitting port for emitting said recording liquid, pressurized by said pressure generating device, onto the major surface of a support, from said liquid chamber in the form of liquid droplets, and a liquid cartridge connected to said emitting means and operating as a supply source of said recording liquid to said supply unit;

said recording liquid containing a dyestuff, a solvent for dispersing said dyestuff and a surfactant containing an organic compound represented by the chemical formula (1):

$$\begin{array}{c} \text{CH}_{3} \\ \text{CH}_{2} - \text{O} - (\text{CH}_{2} \, \text{CH}_{2} \, \text{O})_{\text{n}} - (\text{CH}_{2} \, \text{CHO})_{\text{l}} \text{H} \\ \text{CH}_{3} - \text{CH}_{2} - \text{C} - \text{CH}_{2} \, \text{CH}_{2} \, \text{CH}_{2} \, \text{CH}_{3} \\ \text{CH}_{2} - \text{O} - (\text{CH}_{2} \, \text{CH}_{2} \, \text{O})_{\text{m}} - (\text{CH}_{2} \, \text{CHO})_{\text{k}} \text{H} \\ \text{CH}_{3} \end{array}$$

....(1)

where $k+1 = 1 \sim 10$ and $m+n = 2 \sim 30$.

- 7. The liquid emitting apparatus according to claim 6 wherein said surfactant is contained in said recording liquid in an amount not lower than 0.05 wt% and not higher than 10 wt%.
- 8. The liquid emitting apparatus according to claim 6 wherein a plurality of said pressure generating devices are provided in said liquid chamber of said emitting means to control the driving of each pressure generating device, there being provided emission control means for controlling the angle of emission of said liquid droplets via said emission port.
- 9. The liquid emitting apparatus according to claim 6 wherein said emission ports of said emission means are arranged side-by-side substantially on a straight line.
- 10. A method for emitting a liquid by a liquid emitting apparatus comprising emitting means including a liquid chamber for storage of a recording liquid therein, a supply unit for supplying said recording liquid to said liquid chamber, at least one pressure generating device provided in said liquid chamber for pressurizing said

recording liquid stored in said liquid chamber, and an emitting port for emitting said recording liquid, pressurized by said pressure generating device, onto the major surface of a support, from said liquid chamber in the form of liquid droplets, and a liquid cartridge connected to said emitting means and operating as a supply source of said recording liquid to said supply unit; said method comprising

employing, as said recording liquid, a liquid mixture composed of a dyestuff, a solvent for dispersing said dyestuff, and a surfactant containing an organic compound represented by the chemical formula 1:

$$\begin{array}{c} \text{CH}_{3} \\ \text{CH}_{2} \text{--O} \text{--} (\text{CH}_{2} \, \text{CH}_{2} \, \text{O})_{n} \text{---} (\text{CH}_{2} \, \text{CHO})_{l} \text{H} \\ \text{CH}_{3} \text{---C} \text{---CH}_{2} \, \text{CH}_{2} \, \text{CH}_{2} \, \text{CH}_{3} \\ \text{CH}_{2} \text{---O} \text{---} (\text{CH}_{2} \, \text{CH}_{2} \, \text{O})_{m} \text{---} (\text{CH}_{2} \, \text{CHO})_{k} \text{H} \\ \text{CH}_{3} \end{array}$$

·····(1)

where $k+l = 1 \sim 10$ and $m+n = 2 \sim 30$.

- 11. The liquid emitting method according to claim 10 wherein said surfactant is contained in an amount not lower than 0.05 wt% and not higher than 10 wt%. based on the total content of said recording liquid
- 12. The liquid emitting method according to claim 10 wherein a plurality of said pressure generating devices are provided in said liquid chamber of said emitting

means and wherein the angle of emission of said liquid droplets via said emission port is controlled by emission control means controlling the driving of each pressure generating device.

13. The liquid emitting method according to claim 10 wherein said emission ports of said emission means are arranged side-by-side substantially on a straight line.